

REMARKS

Applicants note with appreciation that the Office Action indicates that the amendment filed on October 21, 2008 are accepted.

Applicants note with appreciation that the Office Action acknowledges the claim to priority and indicates that the priority documents have been received.

Applicants note with appreciation that the Office Action acknowledges the Information Disclosure Statements filed on April 3, 2007 and October 11, 2005.

Claim Amendments

Claim 27 has been amended to include the term "for a livestock" to more particularly point out what Applicants regard as the invention. Also, claim 27 has been amended to include a correct Markush language. Although the term "residue" of claim 27 is definite as discussed below, it has been amended to "supernatant" solely for the purpose of expedition of the examination. The amendments are fully supported by the originally filed specification (e.g., page 6, lines 4 to 5). No new matter has been added.

Claim Rejection – 35 U.S.C. §112, ¶ 2 (indefiniteness)

Claims 27, 30, 33, 36-37, 43 and 47-49 were rejected as including incorrect Markush language. The Markush language has been corrected by the amendments.

The claims were also rejected as the terms "isolated," "removing solid matters," and "a residue" are unclear. The terms are well defined and described in the originally filed specification (e.g., page 12, lines 17-20; page 6, lines 3-11; page 10, lines 1-2). These terms also have been widely used in the art, as disclosed in col. 9, lines 9-18 of Sobol et al. ("the Sobol reference") cited by the Office. That is, liquid and solid matters can be separated from each other by various methods such as centrifugation. Further, bacterial bodies can be separated from the solid matters and/or the liquid by controlling centrifugal velocity. Thus, the terms are not indefinite and Applicant respectfully requests the Examiner to withdraw the rejections.

Claim Rejections – 35 U.S.C. §103 (obviousness)

Claims 27, 30, 33, 36-37 and 49 were rejected as being obvious over the Sobol reference in view of EP 1,112,692 ("the '692 reference"). Claims 43 and 47-48 were rejected as being obvious over Raczek in view of the Sobol reference and the '692 reference.

As amended, independent claim 27 recites a feed composition for a livestock, which comprises comprising at least one selected from (i) a culture obtainable by inoculating and cultivating Lactobacillus gasseri OLL 2716 (FERM BP-6999) in a medium containing a whey protein derivative selected from the group consisting of a whey protein concentrate (WPC), a whey protein isolate (WPI) and a hydrolysate thereof, (ii) Lactobacillus gasseri OLL 2716 (FERM BP-6999) bodies isolated from the culture, and (iii) a supernatant of the culture obtainable by removing solid matters from the culture. As described in the specification (e.g., page 1, lines 6-16; page 27, lines 15-22), the feed composition shows superior effect of intestinal flora-improving activity, anti-diarrhea activity, antioxidant activity, weight-increasing activity, and growth-promoting activity compared to an antibiotic.

The Office Action stated that (i) the Sobol reference discloses a fermented medium containing *Lactobacillus gasseri* bacterium and teaches that the medium can be used as a feed supplement while it does not disclose Lactobacillus gasseri OLL 2716, (ii) the '692 reference teaches Lactobacillus gasseri OLL 2716 useful in a food product, and (iii) those skilled in the art would thus have selected Lactobacillus gasseri OLL 2716 of the '692 reference for the feed supplement of the Sobol reference. Applicants respectfully traverse.

First, those skilled in the art would have had no motivation to select Lactobacillus gasseri OLL 2716 of the '692 reference for providing a feed supplement for a livestock of the present invention. More specifically, before the invention of the '692 reference, antibiotics were administered to a *human patient* to disinfect Helicobacter pylori in its *stomach*. The problems associated with the administration of

the antibiotics were occurrence of antibiotic-resistant Helicobacter pylori and occurrence of severe side effects (see paragraph [0003] of the '692 reference). The inventors discovered that Lactobacillus gasseri OLL 2716 showed an unexpectedly superior effect of disinfecting Helicobacter pylori in a human stomach without causing the problems associated with the antibiotics, and they claimed an invention related to a food product for a human comprising Lactobacillus gasseri OLL 2716 (see paragraphs [0004] and [0010] of the '692 reference).

However, nothing in the '692 reference teaches or suggests that Lactobacillus gasseri OLL 2716 is useful for a feed supplement for a *livestock* and that Lactobacillus gasseri OLL 2716 shows the superior effect of, among others, intestinal flora-improving activity and weight-increasing activity that the feed compositions according to the present invention have. To the contrary, the '692 reference merely teaches that the food product of the '692 reference can be used to disinfect Helicobacter pylori in a *human stomach*, a relevant portion of which is reproduced below:

In accordance with the invention, the disinfection of H. pylori and/or the protection against infection with H. pylori can be practiced efficiently with no occurrence of side effects. The composition of the invention is absolutely not problematic in terms of safety profile and can be freely prepared in the forms of dairy products and other various food or drink products, so the composition can be ingested by healthy people as well as babies and infants, aged people, valetudinarians, and convalescents and the like for a long period of time and exerts a particularly excellent prophylactic and/or therapeutic effect of gastritis, gastric ulcer and the like. (paragraph [0041] of the '692 reference; underlines added for emphasis.)

Moreover, the Sobol reference teaches away from the feature of the present invention. In particular, while the Sobol reference discloses a fermented medium containing Lactobacillus gasseri (claims 1 and 6; col. 1, lines 24-28), it requires the medium to include as an essential element either a solid food ingredient such as a plant (e.g., vegetables, herbs, grains, fruits, etc.) or the solid food ingredient combined with a high protein ingredient such as offal product or sea product (e.g., tissue and organs of fish, poultry, animals and the like) in specific proportions (see claims 1 and 10). A relevant portion of the Sobol reference reads:

The strength and quality of the fermented medium of the invention depends on the number and nature of various ingredients and their proportions. Another unique aspect of the invention is to provide ingredients with high concentration of proteins such as tissue and organs of fish, poultry, animals and others. Offal ingredients are most preferred. As such, the second preferred method of producing the medium of the invention comprise providing at least one food/plant ingredient such as a vegetable, fruit, berry or herb as described above and one high protein ingredient such as an offal component, mushroom, sea product (fish, mussel, plankton for example), egg or nut. Proportion for plant with high protein ingredient and liquid is ranging from 15-80% solids to 20-85% liquid. (col. 7, lines 7-20 of the Sobol reference; underlines added for emphasis.)

Therefore, those skilled in the art would not have had any motivation to exclude the essential elements (i.e., the plant ingredient and high concentration protein) from the Sobol feed supplement in developing a new feed supplement from the teaching of the Sobol reference.

Accordingly, for at least foregoing reasons, the rejections should be withdrawn.

Applicants believe that no additional fees are due, however, if for any reason a fee is required, the Office is hereby authorized and requested to charge Deposit Account No. **04-1105**.

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Respectfully submitted,

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